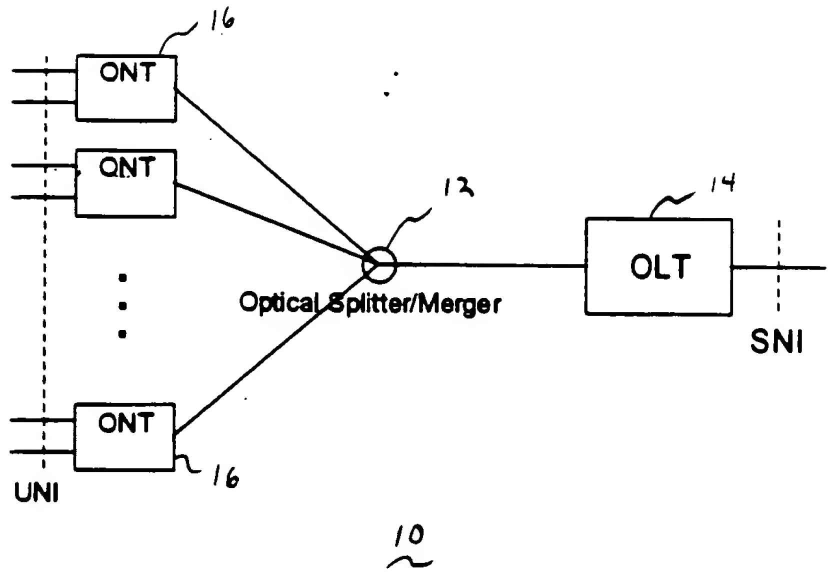


Fig. 1

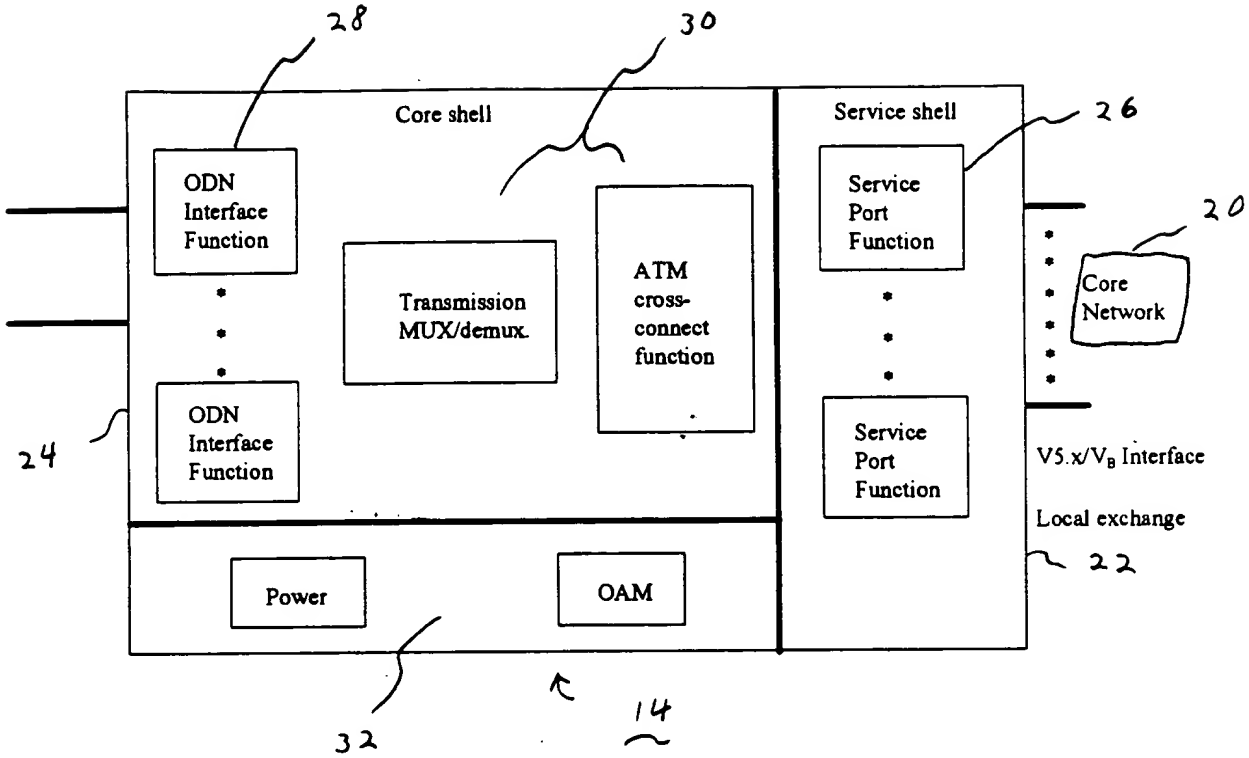
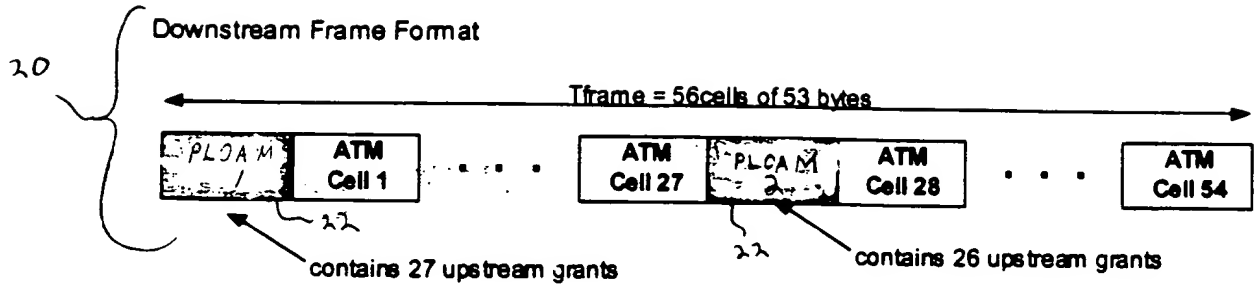

28
30
Core shell
Service shell
26
ODN Interface Function
Transmission MUX/demux
ATM cross-connect function
Service Port Function
20
Core Network
24
ODN Interface Function
Service Port Function
V5.x/V5 Interface
Local exchange
22
Power
OAM
32
14

Fig. 2


20
Downstream Frame Format
Tframe = 56cells of 53 bytes
PLOAM 1
ATM Cell 1
ATM Cell 27
PLOAM 2
ATM Cell 28
ATM Cell 54
22
22
contains 27 upstream grants
contains 26 upstream grants

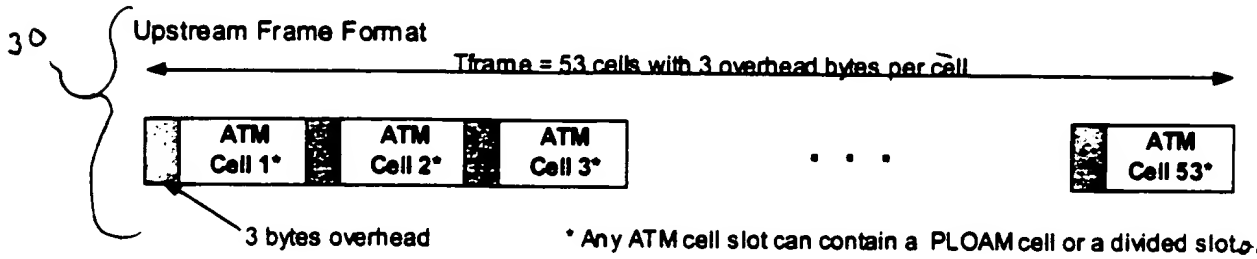

30
Upstream Frame Format
Tframe = 53 cells with 3 overhead bytes per cell
ATM Cell 1*
ATM Cell 2*
ATM Cell 3*
ATM Cell 53*
3 bytes overhead
* Any ATM cell slot can contain a PLOAM cell or a divided slot or standard ATM cell

Fig. 3

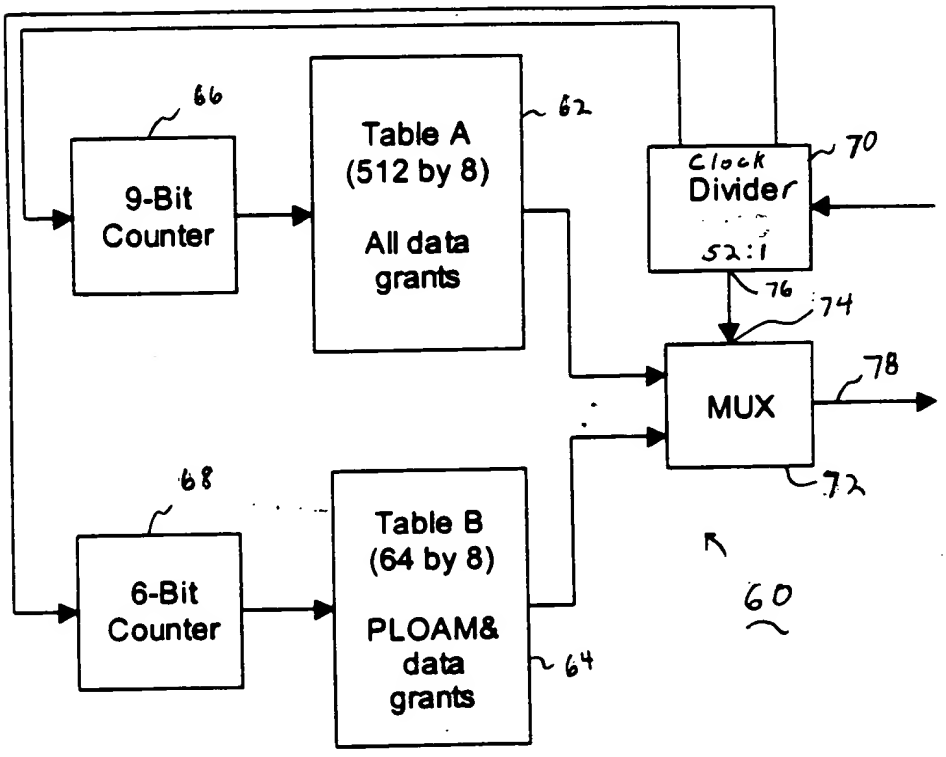

66
9-Bit Counter
Table A (512 by 8)
All data grants
62
Clock Divider
52:1
70
76
74
MUX
78
72
68
6-Bit Counter
Table B (64 by 8)
PLOAM& data grants
64
60

Fig 6

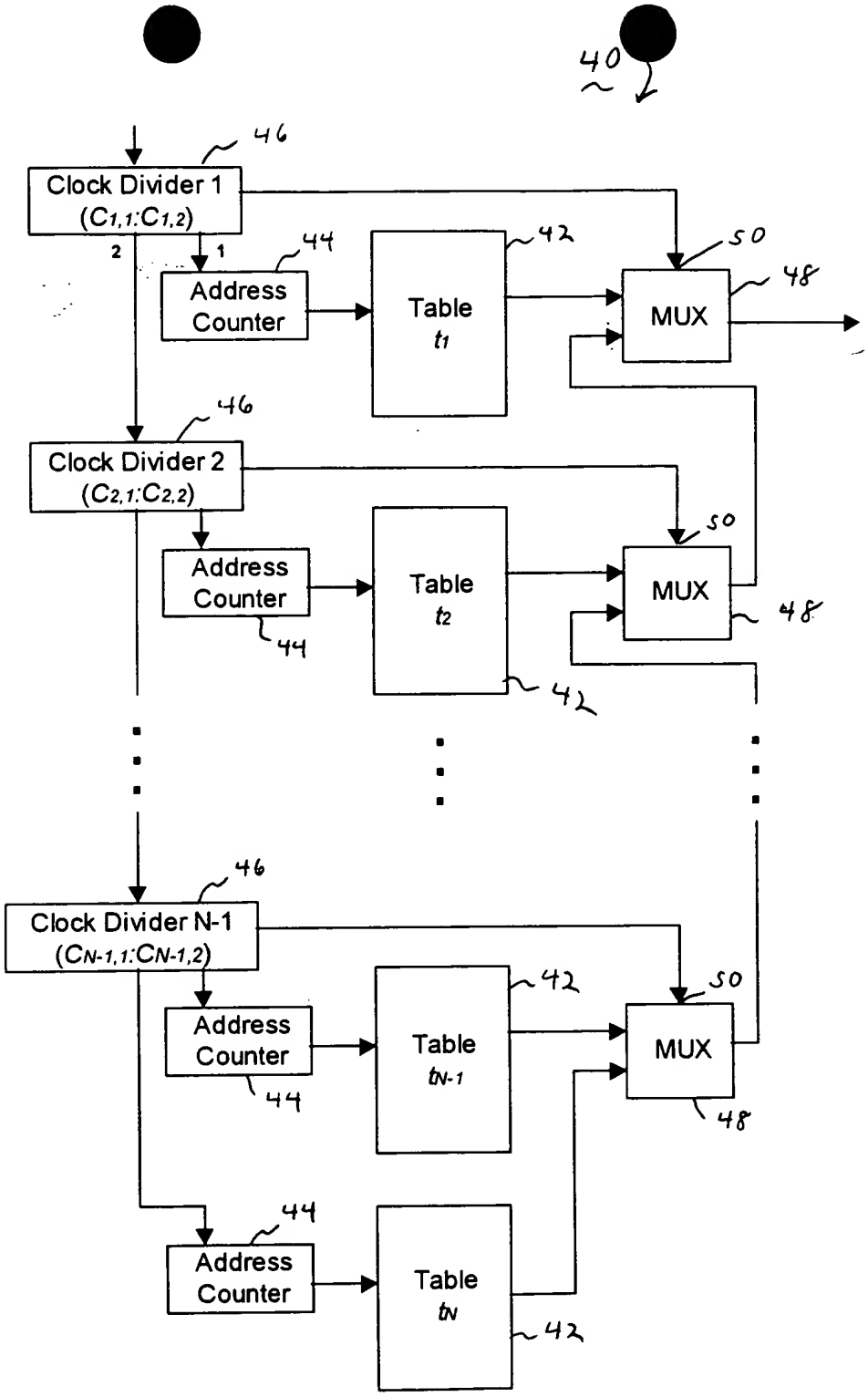


Figure 4. Recursive implementation of grant generator using multi-tables.

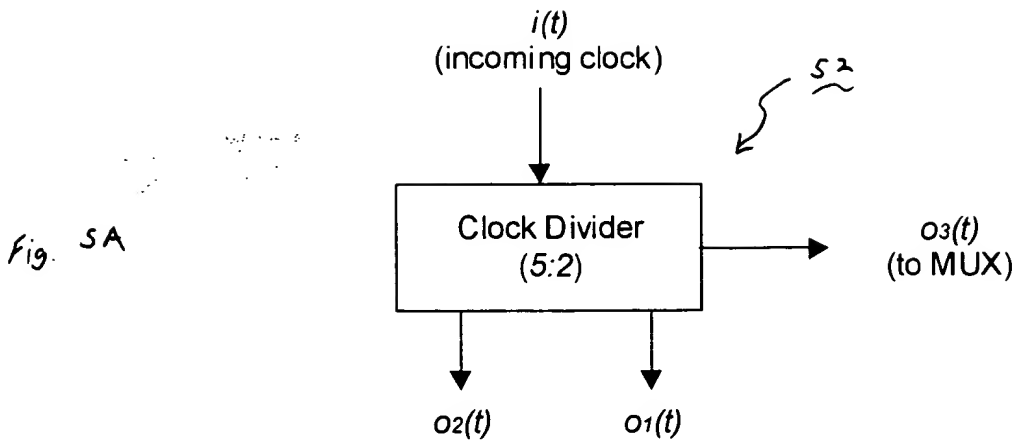


Fig. 5A

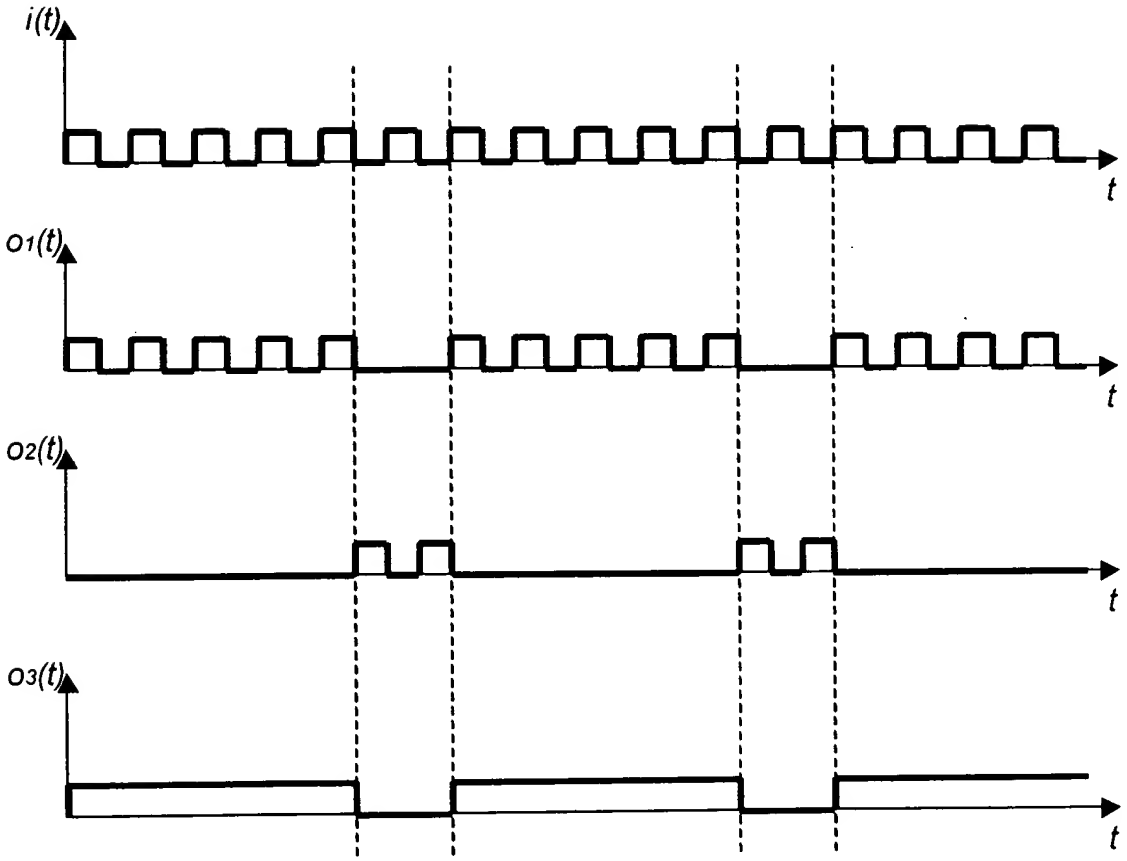
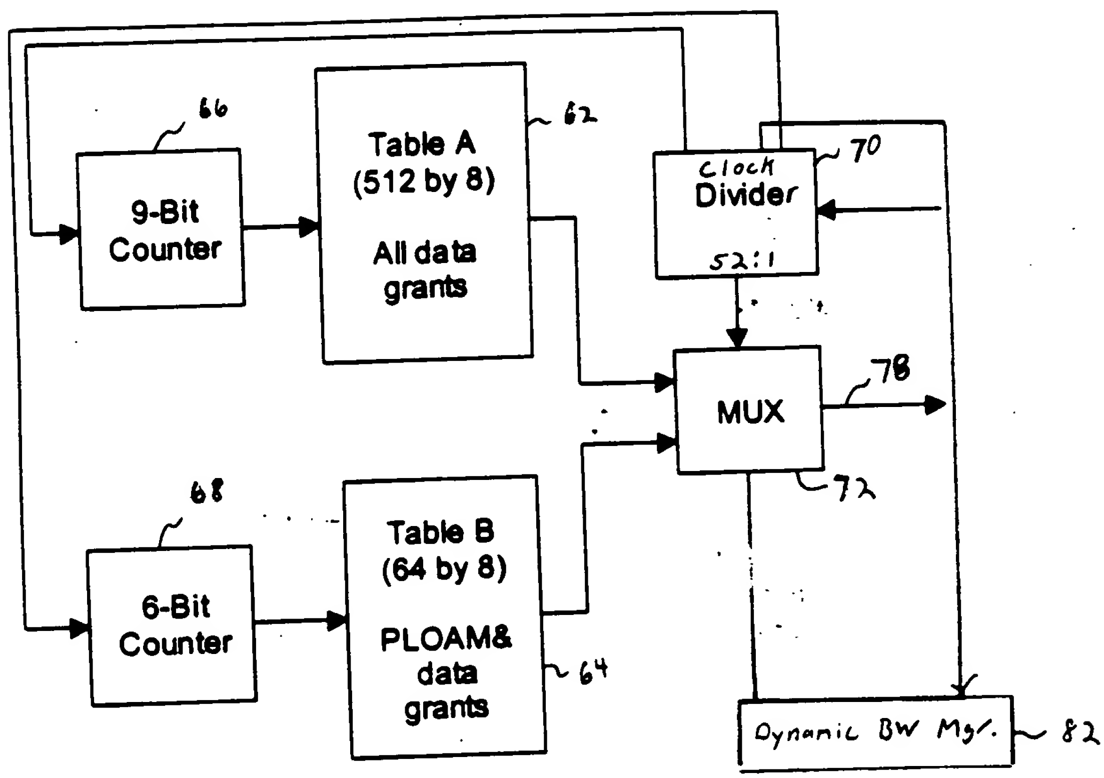


Figure 5βExample timing diagram for input and output signals of clock divider with division ratio 5:2.


66
9-Bit Counter
62
Table A (512 by 8)
All data grants
70
Clock Divider
52:1
MUX
78
72
68
6-Bit Counter
Table B (64 by 8)
PLOAM& data grants
64
Dynamic BW Mgr.
82

80

Fig 7